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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,782	02/20/2002	Toshifumi Honda	16869S-043200US	2718

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EXAMINER

BALI, VIKKRAM

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/081,782	HONDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vikkram Bali	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8,12-14,16,17,20,21 and 23 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,7,9-11,15,18,19 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/20/2002</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 7/18/2001. It is noted, however, that applicant has not filed a certified copy of the 2001-217510 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 5, 8, 12-14, 16-17, 20-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al (US 5659172).

Art Unit: 2623

With respect to claim 1, Wagner discloses a defect detection system that includes a focused electron beam on to a sample and conducting scanning, (see figure 1, 22); detecting secondary ... from ... subject region of said sample ... detectors installed in a plurality of directions, thereby obtaining ... of the inspection ... plurality of direction, (see figure 1, 24a and 24b for detectors, and col. 4, lines 34-36 secondary electron emission, lines 44-46 fraction of the die "region"); correcting mis-registrations between the ... region of said sample ... and the external ... images of the comparison ... that respectively corresponds to the ... plurality of directions, (see col. 5, lines 44-50) and detecting defects of the inspection ... and the external appearance ... from the plurality of ... mis-registrations, (see col. 3, lines 10-17) as claimed. However, he fails to explicitly disclose the picking up images ... region designed ... appearance identical ... from a plurality of directions identical ... region, thereby obtaining ... comparison subject ... of directions, as claimed. But, in col. 4, lines 45-60, he states that the reference images are also picked up from the wafer "sample" of the base area "region" in order to compare for detecting the defects. Therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to considered the reference images as the comparison subject region in order to compare the images to find the defects, this provides a system that will detect the defects in the sample with a higher degree of confidence.

With respect to claim 2, he further discloses the external appearance images ... picked up from the plurality ... two perspective ... two opposed directions and the external

Art Unit: 2623

appearance images of the comparison subject ... picked up ... two perspective images ... subject region ... electron image, (see figure 1, and col. 4, lines 50-60) as claimed.

With respect to claim 5, he further discloses correcting mis registrations ... correcting brightness of external appearances ... plurality of directions and detecting defects ...

the subset of ... region corrected in brightness, (see col. 5 lines 44-50) as claimed.

With respect to claim 8, he further discloses classifying the detects, (see col. 1, lines 47-49) as claimed.

Claim 12 is rejected for the same reasons as set forth in the rejections of claims 1+8, because claim 12 is claiming subject matter some what similar to claims 1+8.

Furthermore, he also discloses the displaying the classified defects, (see col. 4, lines 20-21, the computer, inherently computer does includes a monitor) as claimed.

Claim 13 is rejected for the same reasons as set forth in the rejections of claim 2, because claim 13 is claiming subject matter some what similar to claim 2.

With respect to claim 14, he further discloses correcting mis registration ... subject region, and detecting defects by comparing the ... region corrected in the mis registration, (see col. 5, lines 41-50 and figure 2) as claimed.

Claim 16 is rejected for the same reasons as set forth in the rejections of claim 1, because claim 16 is claiming subject matter some what similar to claim 1. Furthermore, he also discloses storing information concerning the classified defects, (see col. 4, lines 21-23, the computer and computer inherently has the memory also see col. 1, lines 47-49 for classification defects) as claimed.

Art Unit: 2623

Claim 17 is rejected for the same reasons as set forth in the rejections of claim 2, because claim 17 is claiming subject matter some what similar to claim 2.

With respect to claim 20, he further discloses displaying information concerning the classified defects on screen, (see col. 4, lines 21-23, the computer and computer inherently has the monitor for displaying and, also see col. 1, lines 47-49 for classification defects) as claimed.

Claim 21 is rejected for the same reasons as set forth in the rejections of claim 12, because claim 21 is claiming subject matter some what similar to claim 12. furthermore, having a modem in order to transmit any data from point A to point B is well known in the art and therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to simply utilize the well known feature of using a modem in order to transmit the data for making it easy to do the defect detection at any remote location.

Claim 23 is rejected for the same reasons as set forth in the rejections of claim 14, because claim 23 is claiming subject matter some what similar to claim 14.

#### ***Allowable Subject Matter***

4. Claims 3-4, 6-7, 9-11, 15, 18-19 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2623

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 571.272.7415. The examiner can normally be reached on 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571.272.7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vikkram Bali  
Primary Examiner  
Art Unit 2623



vb  
March 15, 2006